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United States
Department of
Agriculture

Soil
Conservation
Service

Boise,
Idaho

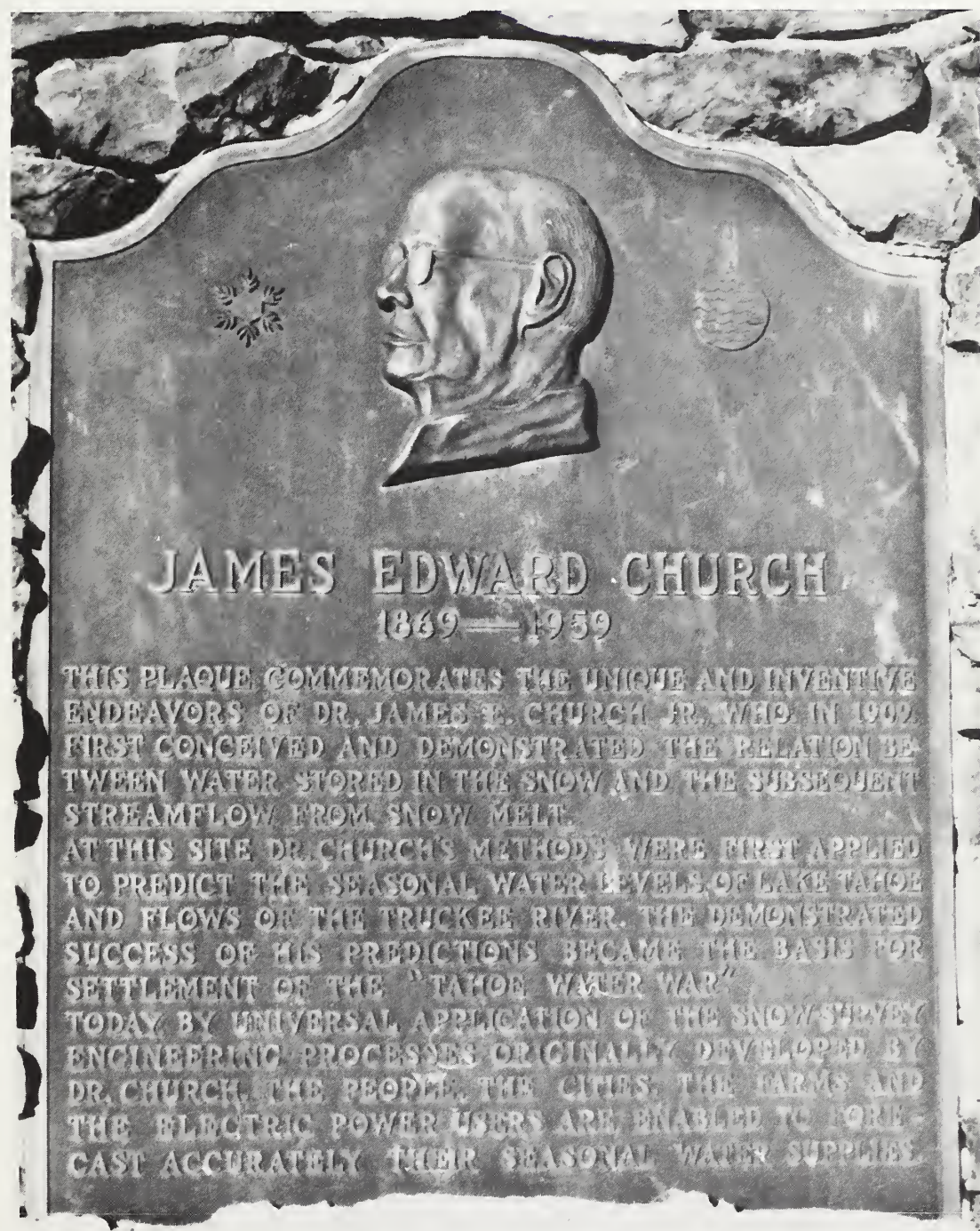


Idaho Water Supply Outlook

February 1, 1989

MAY 16 '89

LIBRARY



JAMES EDWARD CHURCH

1869 — 1959

THIS PLAQUE COMMEMORATES THE UNIQUE AND INVENTIVE ENDEAVORS OF DR. JAMES E. CHURCH JR. WHO IN 1902 FIRST CONCEIVED AND DEMONSTRATED THE RELATION BETWEEN WATER STORED IN THE SNOW AND THE SUBSEQUENT STREAMFLOW FROM SNOW MELT.

AT THIS SITE DR. CHURCH'S METHODS WERE FIRST APPLIED TO PREDICT THE SEASONAL WATER LEVELS OF LAKE TAHOE AND FLOWS ON THE TRUCKEE RIVER. THE DEMONSTRATED SUCCESS OF HIS PREDICTIONS BECAME THE BASIS FOR SETTLEMENT OF THE "TAHOE WATER WAR"

TODAY BY UNIVERSAL APPLICATION OF THE SNOW-SURVEY ENGINEERING PROCESSES ORIGINALLY DEVELOPED BY DR. CHURCH, THE PEOPLE, THE CITIES, THE FARMS AND THE ELECTRIC POWER USERS ARE ENABLED TO FORECAST ACCURATELY THEIR SEASONAL WATER SUPPLIES.

Foreword

How Forecasts Are Made

Most of the annual streamflow in the Western United States originates as snowfall that has accumulated high in the mountains during winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Predictions are based on careful measurements of snow water equivalent at selected index points. Precipitation, temperature, soil moisture and antecedent streamflow data are combined with snowpack data to prepare runoff forecasts. Streamflow forecasts are coordinated by Soil Conservation Service and National Weather Service hydrologists. This report presents a comprehensive picture of water supply outlook conditions for areas dependent upon surface runoff. It includes selected streamflow forecasts, summarized snowpack and precipitation data, reservoir storage data, and narratives describing current conditions.

Snowpack data are obtained by using a combination of manual and automated measurement methods. Manual readings of snow depth and water equivalent are taken at locations called snow courses on a monthly or semi-monthly schedule during the winter. In addition, snow water equivalent, precipitation and temperature are monitored on a daily basis and transmitted via radio telemetry to central data collection facilities. Both monthly and daily data are used to project snowmelt runoff.

An error is associated with each forecast, and this error decreases as the season progresses and more data becomes available. To express the range of error that can be expected, "most probable" forecasts are issued along with a range representing a "reasonable minimum" and a "reasonable maximum". Actual streamflow can be expected to fall within this range in eight out of ten years. Additionally two specific scenarios are provided based on the assumption that subsequent precipitation will be "wet", above average, or "dry", below average.

For More Information

Copies of Monthly Water Supply Outlook Reports and other reports may be obtained from the states listed below. An annual snow survey data summary is published by the Soil Conservation Service for each of the western states. Historical snow survey data may be obtained at those same offices.

STATE	ADDRESS
Alaska	201 East 9th Ave., Suite 300, Anchorage, AK 99501-3687
Arizona	201 East Indianola Ave., Suite 200, Phoenix, AZ 85012
Colorado	2490 West 26th Ave., Building A, 3rd floor, Denver, CO 80211
Idaho	3244 Elder Street, Room 124, Boise, ID 83705
Montana	10 East Babcock, Room 443, Federal Building, Bozeman, MT 59715
Nevada	1201 Terminal Way, Room 219, Reno, NV 89502
New Mexico	517 Gold Ave. S.W., Room 3301, Albuquerque, NM 87102-3157
Oregon	1220 Southwest 3rd Ave., Room 1640, Portland, OR 97204
Utah	4402 Federal Building, 125 South State Street, Salt Lake City, UT 84147
Washington	W. 920 Riverside, Room 360, Spokane, WA 99201-1080
Wyoming	Federal Building, 100 "B" Street, Room 3124, Casper, WY 82601

In addition to state reports, a Water Supply Outlook for the Western United States is published by the Soil Conservation Service and National Weather Service monthly, January through May. Reports may be obtained from the Soil Conservation Service, West National Technical Center, 511 Northwest Broadway, Room 248, Portland, OR 97209-3489.

Water supply reports published by other agencies:

California — Snow Survey Branch, California Department of Water Resources, P.O. Box 388, Sacramento, CA 95802; British Columbia — The Ministry of Environment, Water Investigations Branch, Parliament Buildings, Victoria, British Columbia, V8V 1X5; Yukon Territory — Department of Indian and Northern Affairs, Northern Operations Branch, 200 Range Road, Whitehorse, Yukon Territory, Y1A3V1; Alberta, Environment Technical Services Division, 9820 106th St., Edmonton, Alberta T5K 2J6.

Idaho Water Supply Outlook

and

Federal — State — Private Cooperative Snow Surveys

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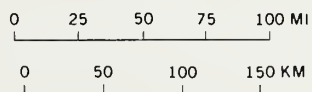
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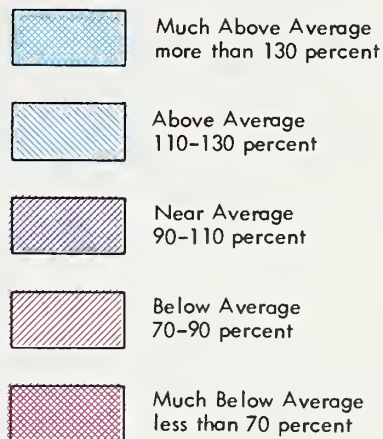
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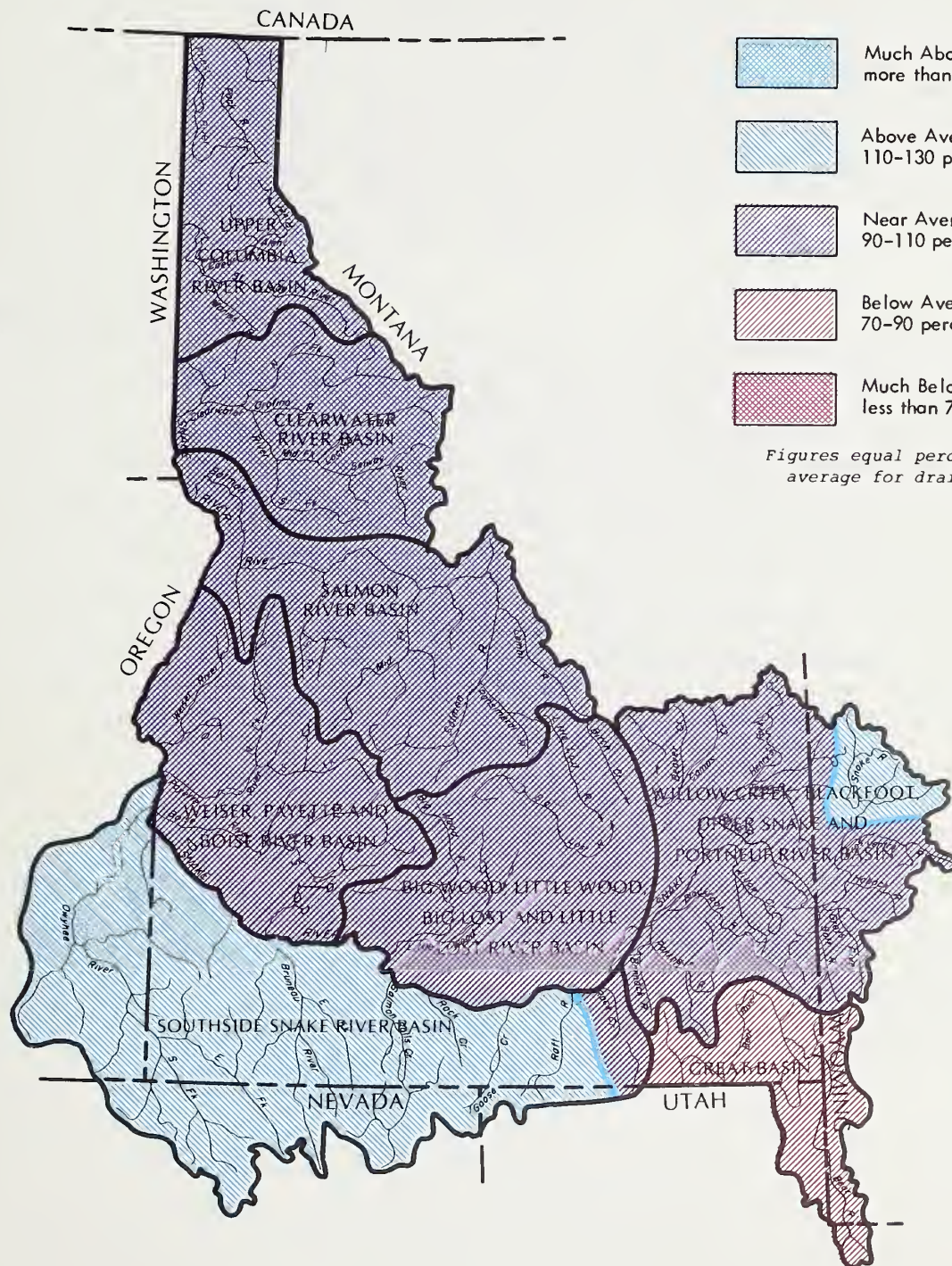
STREAMFLOW PROSPECTS IDAHO



LEGEND



*Figures equal percent of
average for drainage.*



GENERAL OUTLOOK

SUMMARY:

FEBRUARY 1 SNOW SURVEYS INDICATE THAT THE WINTER SNOWPACK CONTINUES TO BUILD IN A NEAR NORMAL MANNER. ABUNDANT PRECIPITATION DURING THE FIRST TWO WEEKS OF JANUARY PROVIDED NEAR TO ABOVE AVERAGE SNOWPACK BUILDUP FOR THE MONTH AS A WHOLE. AFTER TWO VERY DRY YEARS IN A ROW, WATER USERS IN THE SOUTHWESTERN CORNER OF THE STATE CAN EXPECT ADEQUATE RUNOFF THIS YEAR. SOUTHEASTERN IDAHO CONTINUES TO HOPE FOR IMPROVEMENT FOR ITS BELOW NORMAL SNOWPACK. ASSUMING NORMAL PRECIPITATION PATTERNS CONTINUE, THE REMAINDER OF THE STATE CAN EXPECT NEAR AVERAGE WATER SUPPLIES FOR THE 1989 SEASON.

SNOWPACK:

With about two-thirds of the winter snow accumulation season now behind us, snowpack conditions are reported to be near or above normal throughout the state except in the Great Basin area where below average snowpacks are reported. Heavy precipitation during the first half of January in northern Idaho resulted in improved conditions on all basins from the Salmon River north. Northern Idaho snowpacks now range from 88% of average on the Salmon River to 100% on the North Fork of the Clearwater and Priest River drainages. In the central part of the state, snowpack conditions remain near normal, ranging from 93% of average on the Big Lost basin to 110% on the Boise River. In eastern Idaho and western Wyoming, lower elevation watersheds show a slight drop from the snowpack figures reported last month while the high elevations remain about the same. February 1 snow conditions remain near or above normal for the area, ranging from 94 to 136% of average on all basins except the Salt River which only reports 79% of average snowpack. Snowpack figures on the south side of the Snake remain above to well above normal, ranging from 116% on the Raft River to 171% on the Owyhee River basin. Southeastern Idaho reports the lowest snowpacks in the state, with only 83% of average on the Cub River and Montpelier Creek drainages.

PRECIPITATION:

January weather began on an excellent note with abundant rain and snow falling over the entire state. By the end of the second week, however, the pattern changed and little additional precipitation was received for the rest of the month. The north and north central portions of the state received the most precipitation, while the southern valleys were on the dry side. Salmon received its normal complement of precipitation for the month, while several other stations in the central mountains reported 120% or better. The southwest ranged from 75% at Idaho City to only 41% at Parma. Southcentral Idaho was one of the driest areas in the state, with Fairfield reporting 53% of average and Twin Falls only 20%. The Great Basin area continues its dry trend with Aberdeen reporting only 25% of normal and Grace 60%. The only above normal area in southern Idaho was in the Upper Snake basin with Idaho Falls reporting 100% and Ashton with 124%. The statewide precipitation average was 87% of normal. Temperatures for January were above normal in the north and below normal in the south. Porthill and Lewiston averaged a 4.2 degree departure above normal, with Salmon at plus 1.7 degrees. The south reported below normal temperatures, with a minus 5.2 degree departure at Boise and a minus 4.4 degrees at Pocatello.

RESERVOIRS:

Reservoir carryover storage remains below to well below normal in all major reservoirs ranging from a low of 18% of average (11% of capacity) in Owyhee Reservoir to 98% (57% of capacity) in Cascade. Twenty-seven key reservoirs across the state report a combined storage of 69% of normal and only 44% of capacity. The lowest carryover volumes are generally found in the south central and southwestern parts of the state. The combined Upper Snake Reservoir system reports 60% of average storage and 43% of capacity on February 1, while the Boise Reservoir system reports 53% of average and only 33% of capacity. Although most reservoirs remain well below normal, most systems are expected to fill or nearly fill if we receive normal runoff for the April-July period.

STREAMFLOW:

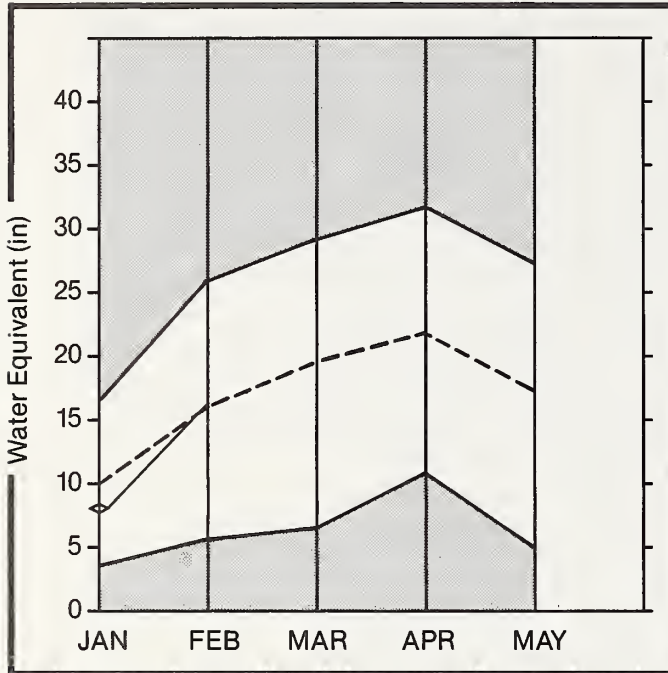
Idaho's water supply outlook continues to look good for the 1989 season. Apr-Sept streamflow projections remain near to above normal throughout most of the state, ranging from 90% of average for the Big Wood and Big Lost Rivers to 121% for the inflow to Owyhee Reservoir. The exceptions are found in the southeast corner of the state where spring and summer streamflows are expected to be below normal, ranging from 79% of normal for the Bear River nr Harer to 85% for the Cub River nr Preston. Forecasts in the northern part of the state have improved slightly from those reported a month ago and now range from 92% to 98% of normal. Forecasts in the central and eastern parts of the state show little or no change from last month and remain near normal, ranging from 90 to 113% of average. Southwestern Idaho streamflow forecasts continue to be above or well above normal, ranging from 105% on the Owyhee River nr Owyhee to 125% for the Owyhee nr Rome.

RECREATIONAL OUTLOOK:

The word is definitely optimistic. Recreational boaters can plan for plentiful water for spring and summer boating. Southwest Idaho desert boating enthusiasts can smile at February 1 snowpacks of 138% of normal on the Bruneau River and 171% on the Owyhee. Near normal snowpack on the Salmon and Clearwater River drainages has river runners planning for a "normal" recreational season. Both the levels and the timing of the runoff will depend on spring and early summer temperatures and precipitation. Because soils were very dry going into the winter, much of the snowmelt will soak into the ground before streams will respond. With approximately one-third of the snow accumulation season remaining, near normal snowfall is needed to ensure the abundant recreational opportunities expected.

Upper Columbia Basin

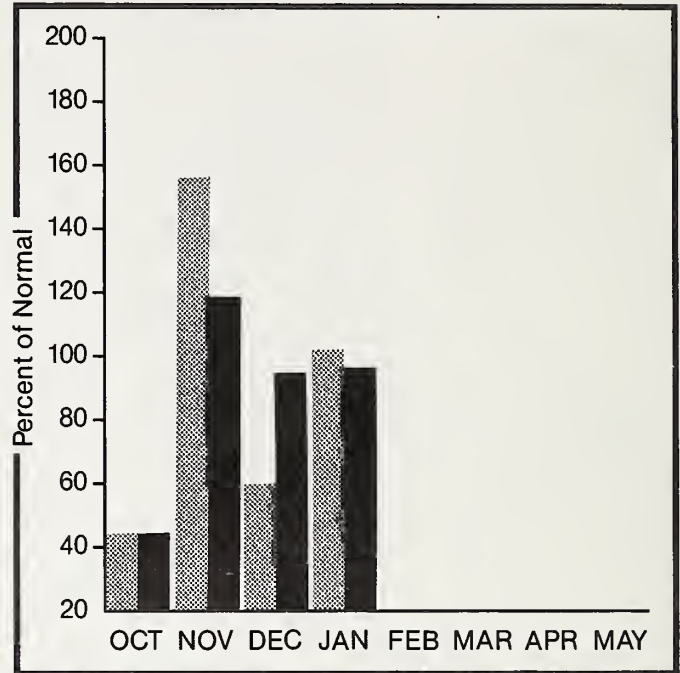
Mountain snowpack* (inches)



*Based on selected stations

Maximum ———
Minimum ———
Average - - - -
Current ◊ ———

Precipitation* (percent of normal)



*Based on selected stations

Monthly precipitation [hatched bar]
Year to date precipitation [solid black bar]

WATER SUPPLY OUTLOOK:

Snowpack conditions in the basin show a good improvement from last month as a result of well above normal precipitation during the first half of January. Basin snowpacks are now near average on all watersheds, ranging from 95 to 100% of normal for this time of the year. Fourth of July Summit snow course reported 158% of normal snowpack indicating the low elevation areas near Coeur d'Alene have well above normal amounts of snow. Apr-Sept streamflow forecasts have been increased slightly and now range from 92 to 96% of normal. Reservoir storage remains low with Pend Oreille and Coeur d'Alene lakes reporting 54 and 53% of average storage, respectively. Priest Lake reports near normal storage at 97% of average.

UPPER COLUMBIA RIVER BASIN

STREAMFLOW FORECASTS

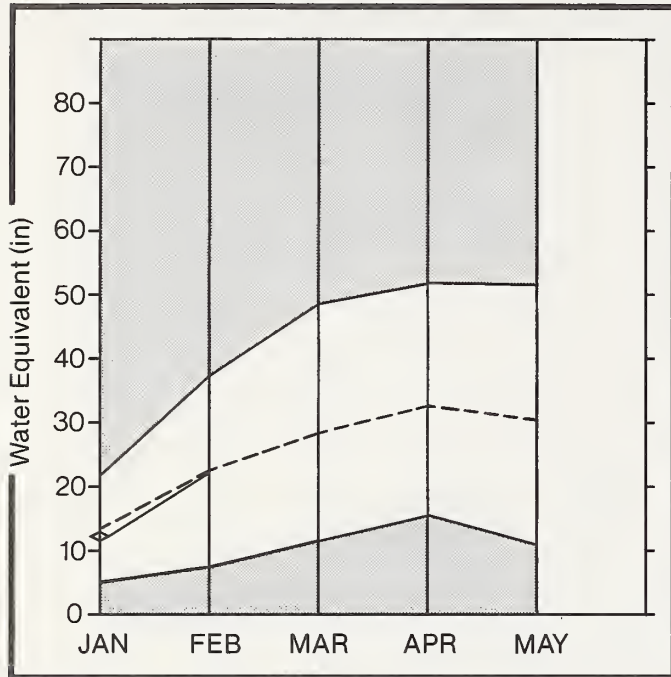
FORECAST POINT	FORECAST PERIOD	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVG.)	WET SUBS. (1000AF)	DRY SUBS. (1000AF)	REAS. MAX. (1000AF)	REAS. MIN. (1000AF)	25 YR. AVG. (1000AF)
KOOTENAI at Leonis (2)	APR-SEP	8090	96			9950	6230	8441
	APR-JUL	7030	96			8640	5420	7340
	APR-JUN	5660	96			6960	4360	5899
CLARK FORK at Whitehorse Rapids (2)	APR-SEP	12400	93			16100	8660	13370
	APR-JUL	11300	93			14600	7900	12150
	APR-JUN	9630	93			12300	6730	10360
PEND OREILLE LAKE inflow (2)	APR-SEP	13800	92			18000	9620	14930
	APR-JUL	12700	93			16500	8740	13650
	APR-JUN	11000	93			14300	7580	11780
PRIEST nr Priest River (2)	APR-SEP	850	95			1140	555	893
	APR-JUL	795	95			1070	520	838
COEUR D'ALENE at Enaville	APR-SEP	785	95			1180	385	830
	APR-JUL	730	93			1120	360	789
SPOKANE nr Post Falls (2)	APR-SEP	2590	92	3130	2050	3750	1460	2820
	APR-JUL	2500	92	3020	1980	3620	1410	2723
ST. JOE at Calder	APR-SEP	1180	92	1400	975	1550	810	1281
	APR-JUL	1110	92	1330	915	1460	760	1211

RESERVOIR STORAGE (1000AF)					WATERSHED SNOWPACK ANALYSIS			
RESERVOIR	USEABLE CAPACITY	% USEABLE STORAGE THIS YEAR	% USEABLE STORAGE LAST YEAR	% USEABLE STORAGE AVG.	WATERSHED	NO. COURSES AVG'D	THIS YEAR AS % OF LAST YR. AVERAGE	
HUNGRY HORSE	3451.0	1520.0	1887.0	2406.0	Kootenai ab Bonners Ferry	33	158	94
FLATHEAD LAKE	1791.0	782.6	840.2	1133.0	Pend Oreille River	112	156	96
PEND OREILLE	1561.2	440.6	529.9	823.1	Clark Fork River	77	145	92
NOXON RAPIDS	335.0	325.1	324.7	314.2	Priest River	5	139	100
COEUR D'ALENE	291.2	109.2	80.2	205.4	Rathdrum Creek	0	0	0
PRIEST LAKE	97.7	31.8	34.8	32.9	Havden Lake	0	0	0
					Coeur d'Alene River	8	189	98
					St. Joe River	7	155	94
					Spokane River	15	169	96
					Palouse River	0	0	0

WET SUBS. and DRY SUBS. represent 130 and 70 percent subsequent precipitation events respectively.
 REAS. MAX. and REAS. MIN. forecasts are for 10% and 90% exceedance levels with the exception of (1) below.
 (1) - REAS. MAX. and REAS. MIN. forecasts are for 5% and 95% exceedance levels.
 (2) - Corrected for upstream diversions or changes in reservoir storage.

Clearwater River Basin

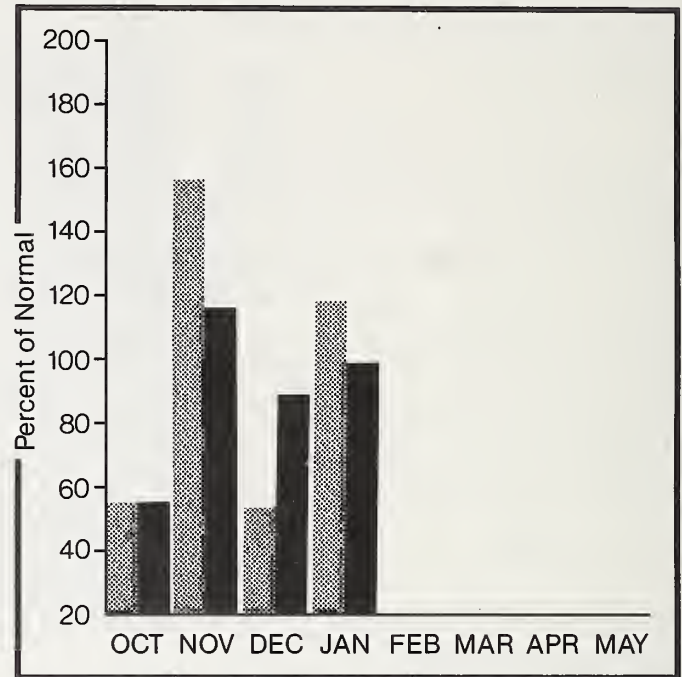
Mountain snowpack* (inches)



*Based on selected stations

Maximum Average
Minimum Current

Precipitation* (percent of normal)



*Based on selected stations

Monthly precipitation Year to date precipitation

WATER SUPPLY OUTLOOK:

Heavy precipitation during the first half of January brought improved snowpack conditions to the Clearwater drainage. Basin snowpack figures are now near normal, ranging from 94 to 100% of average for February 1. Several lower elevation stations in the Moscow, Boville, and Pierce areas reported well above normal amounts of snow, ranging from 133% of average at Pierce R.S. to 157% at the Sherwin Point station. Carryover storage in Dworshak Reservoir remains slightly below normal at 89% of average storage and 56% of capacity. Apr-Sept streamflow volumes are forecast to be near normal, ranging from 95 to 98% of average.

For more information contact your local Soil Conservation Service office.

CLEARWATER RIVER BASIN

STREAMFLOW FORECASTS

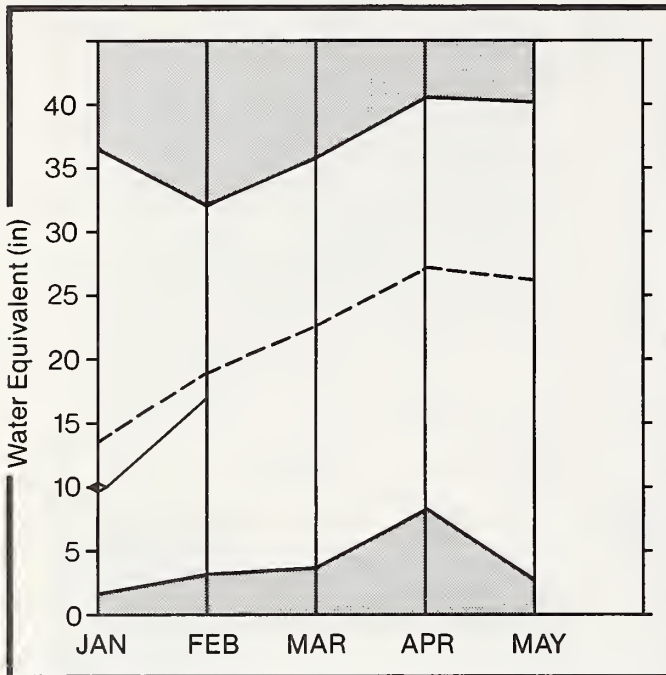
FORECAST POINT	FORECAST PERIOD	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVG.)	WET SUBS. (1000AF)	DRY SUBS. (1000AF)	REAS. MAX. (1000AF)	REAS. MIN. (1000AF)	25 YR. AVG. (1000AF)
DHORSHAK RESERVOIR inflow	APR-SEP	2940	98			4110	1710	3010
	APR-JUL	2730	97			3860	1600	2822
CLEARWATER at Orofino	APR-SEP	4900	95			6760	3040	5163
	APR-JUL	4650	95			6410	2890	4889
CLEARWATER at Spalding	APR-SEP	8030	96			11200	4850	8378
	APR-JUL	7600	96			10600	4590	7916

RESERVOIR STORAGE (1000AF)					WATERSHED SNOWPACK ANALYSIS			
RESERVOIR	USEABLE CAPACITY	** USEABLE STORAGE **			WATERSHED	NO. COURSES AVG'D	THIS YEAR AS % OF	
	THIS YEAR	LAST YEAR	AVG.				LAST YR.	AVERAGE
DHORSHAK	3467.8	1959.2	1854.8	2198.2	North Fork Clearwater	13	170	100
					Locha River	4	135	97
					Selway River	2	138	94
					Clearwater River	16	156	97

WET SUBS. and DRY SUBS. represent 170 and 70 percent subsequent precipitation events respectively.
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Salmon River Basin

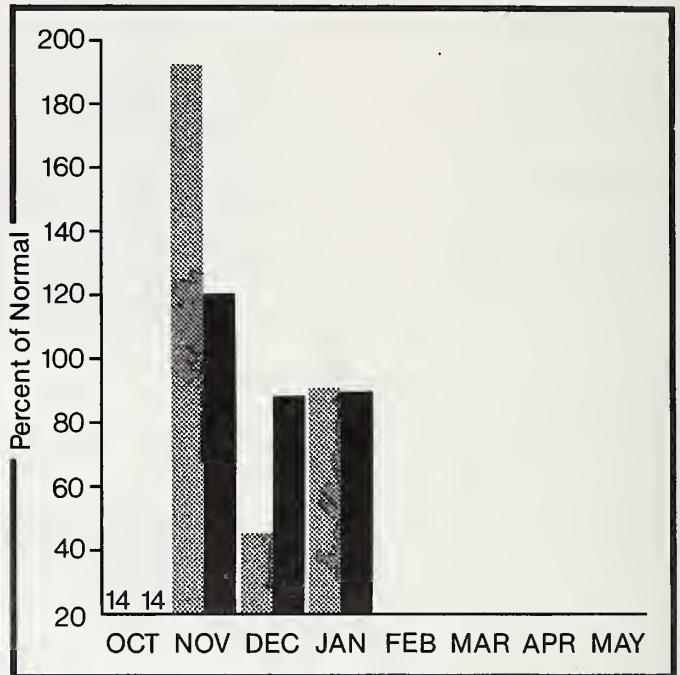
Mountain snowpack* (inches)





*Based on selected stations

Maximum ——— Average - - - - -
Minimum ——— Current ◇ ———

Precipitation* (percent of normal)



*Based on selected stations

Monthly precipitation  Year to date precipitation 

WATER SUPPLY OUTLOOK:

February 1 snow measurements show snowpack conditions over the basin improved somewhat during January, but remain slightly below normal. Currently, snowpacks range from 80% of normal on the Lemhi River to 95% in the lower Salmon River. Apr-Sept streamflow volumes are forecast to be just slightly below normal. Soil profiles remain dry and are expected to absorb more than normal amounts of water when the spring melt begins. However, near normal precipitation patterns for the remainder of the season should provide good flows for white water boating and other uses this spring and summer.

For more information contact your local Soil Conservation Service office.

SALMON RIVER BASIN

STREAMFLOW FORECASTS

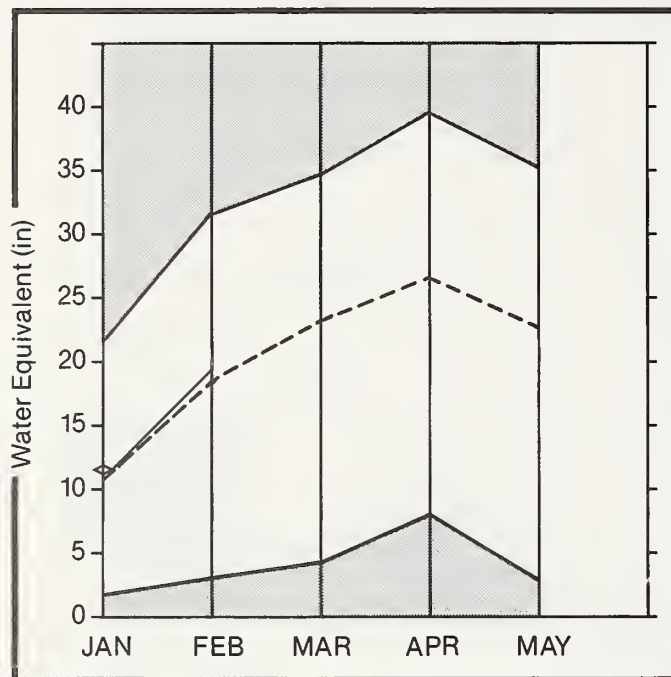
FORECAST POINT	FORECAST PERIOD	HIST PROBABLE (1000AF)	HIST PROBABLE (% AVG.)	WET SUBS. (1000AF)	DRY SUBS. (1000AF)	REAS. MAX. (1000AF)	REAS. MIN. (1000AF)	25 YR. AVG. (1000AF)
SALMON at Salmon	APR-SEP	1000	93			1430	570	1077
	APR-JUL	855	93			1220	485	919
SALMON at White Bird	APR-SEP	6450	92			8760	4140	7007
	APR-JUL	5820	92			7910	3730	6322

RESERVOIR STORAGE (1000AF)					WATERSHED SNOWPACK ANALYSIS			
RESERVOIR	USEABLE CAPACITY	** USEABLE STORAGE **			WATERSHED	NO. COURSES AVG'D	THIS YEAR AS % OF	
	1	THIS YEAR	LAST YEAR	AVG.			LAST YR.	AVERAGE
					Salmon River ab Salmon	7	134	88
					Lemhi River	1	154	80
					Salmon River Total	21	144	95

WET SUBS. and DRY SUBS. represent 130 and 70 percent subsequent precipitation events respectively.
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Weiser, Payette, and Boise River Basin

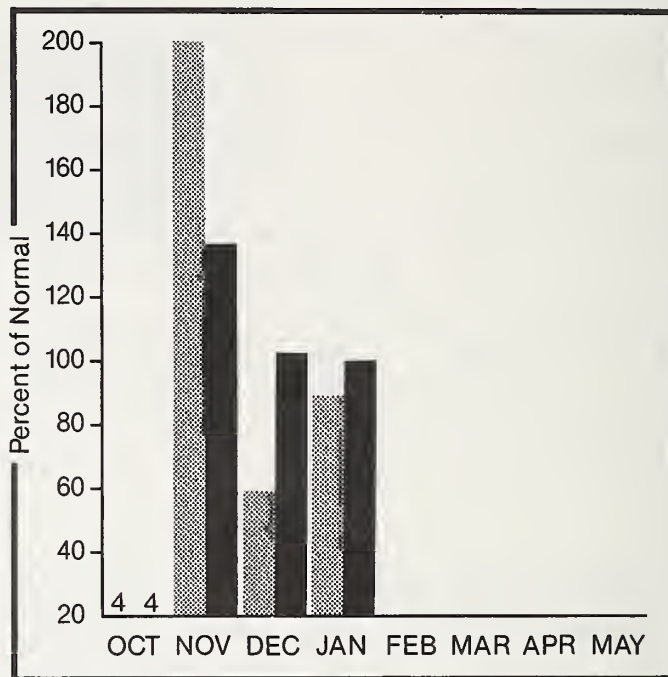
Mountain snowpack* (inches)



*Based on selected stations

Maximum ——— Average - - - - -
Minimum ——— Current ◊ ———

Precipitation* (percent of normal)



*Based on selected stations

Monthly precipitation [hatched bar] Year to date precipitation [solid black bar]

WATER SUPPLY OUTLOOK:

February 1 snow measurements show that basin snowpacks remain near normal, with most basins reporting between 98 and 110% of average snowpacks. Higher elevation stations which were reporting slightly below average conditions on Jan. 1 have improved slightly and are now reporting near normal snowpacks. Apr-Sept streamflow volumes are expected to be near normal, with forecasts ranging from 95 to 100% of average. Reservoir storage is near average in Cascade Reservoir, but remains below to well below average in most other reservoirs. The Boise system now has a combined storage of 53% of average and 33% of capacity. Although storage levels are low, most systems are expected to fill or nearly fill provided normal precipitation and temperature patterns continue from now through the snowmelt runoff season.

WEISER, PAYETTE, AND BOISE RIVER BASIN

STREAMFLOW FORECASTS

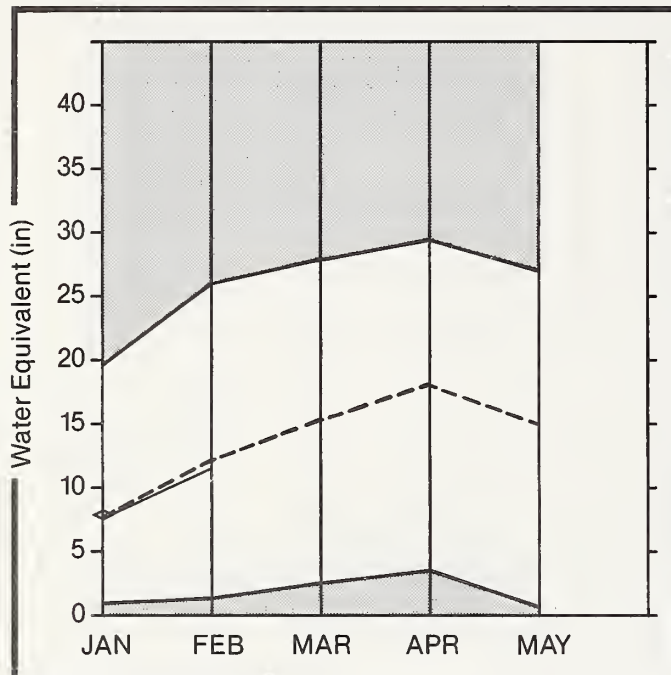
FORECAST POINT	FORECAST PERIOD	HIST PROBABLY (1000AF)	HIST PROBABLY (% AVG.)	WET SUBS. (1000AF)	DRY SUBS. (1000AF)	REAS. MAX. (1000AF)	REAS. MIN. (1000AF)	25 YR. AVG. (1000AF)
WEISER nr Weiser	APR-SEP	430	97			680	177	444
	APR-JUL	400	97			630	164	414
NF PAYETTE at Cascade (2)	APR-SEP	540	95	575	505	660	420	568
	APR-JUL	505	95	530	480	615	395	531
NF PAYETTE nr Banks (2)	APR-SEP	700	95	820	595	805	515	737
	APR-JUL	660	96	770	555	835	485	691
PAYETTE nr Horseshoe Bend	APR-SEP	1790	96	1980	1600	2260	1320	1862
	APR-JUL	1650	96	1840	1460	2080	1220	1717
SF PAYETTE at Lowman	APR-SEP	490	95	545	435	620	360	516
	APR-JUL	435	95	490	380	550	320	458
DEADWOOD RESERVOIR inflow	APR-JUL	140	98			179	103	143
BOISE nr Twin Springs (1)	APR-SEP	705	98	800	610	885	530	722
	APR-JUL	650	98	750	550	810	490	664
BOISE nr Boise (1)	APR-SEP	1610	99	1890	1330	2110	1070	1628
	APR-JUL	1490	99	1750	1230	1970	1010	1508
	APR-JUN	1320	99	1550	1090	1750	895	1334
SF BOISE at Anderson Ranch Dam (1)	APR-SEP	620	100	720	520	745	495	619
	APR-JUL	580	100	665	495	690	465	578

RESERVOIR STORAGE (1000AF)					WATERSHED SNOWPACK ANALYSIS			
RESERVOIR	USEABLE CAPACITY	** USEABLE STORAGE ** THIS YEAR	LAST YEAR	AVG.	WATERSHED	NO. COURSES AVG'D	THIS YEAR AS % OF LAST YR. AVERAGE	
HAHN CREEK	11.3	2.5	1.6	5.4	Hahn Creek	1	181	105
CASCADE	703.2	403.2	362.7	409.4	Weiser River	4	154	98
DEADWOOD	162.0	58.6	64.6	79.5	North Fork Payette	10	152	102
ANDERSON RANCH	464.2	131.6	125.3	300.6	South Fork Payette	7	149	98
ARROWROCK	286.6	139.4	146.3	223.9	Payette River Total	16	150	99
LUCKY PEAK	307.0	62.4	81.0	117.4	Middle & North Fork Boise	9	158	103
LAKE LOWELL (DEER FLAT)	177.0	80.1	87.8	131.0	South Fork Boise River	7	165	105
					Boise River Total	16	165	110
					Canyon Creek	0	0	0

WET SUBS. and DRY SUBS. represent 130 and 70 percent subsequent precipitation events respectively.
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 (1) - REAS. MAX. and REAS. MIN. forecasts are for 5% and 95% exceedance levels.
 (2) - Corrected for upstream diversions or changes in reservoir storage.

Big Wood, Little Wood, Big Lost, and Little Lost River Basin

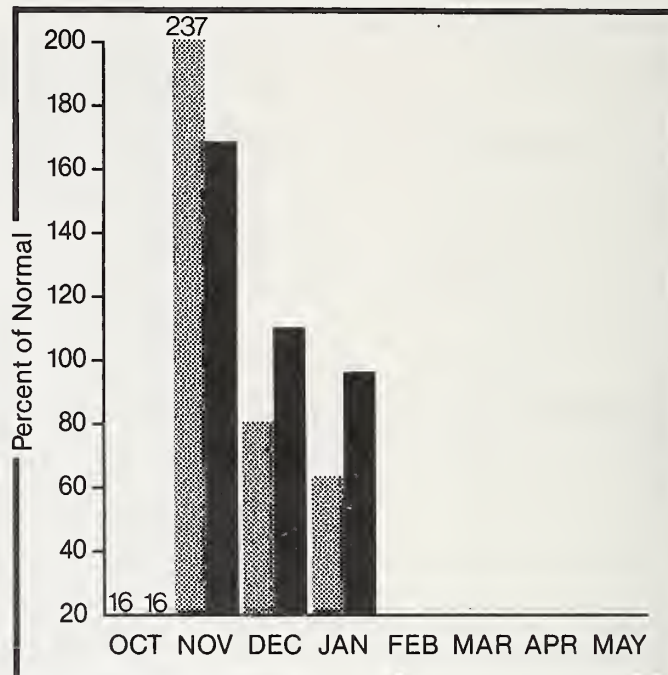
Mountain snowpack* (inches)



*Based on selected stations

Maximum Average
Minimum Current

Precipitation* (percent of normal)



*Based on selected stations

Monthly precipitation Year to date precipitation

WATER SUPPLY OUTLOOK:

February 1 snowpack conditions show little or no change from those reported last month, remaining near normal in the higher elevations and above normal in the lower elevations. Basin snowpack conditions currently range from 93% of normal on the Big Lost River to 133% on the Fish Creek basin. Apr-Sept streamflow forecasts remain near normal, ranging from 90% of average on the Big Wood and Big Lost Rivers to 95% on the Little Lost below Wet Ck. Reservoir carryover storage remains low, ranging from only 22% of normal (11% of capacity) in Magic Reservoir to 69% of normal (46% of capacity) in Mackay Reservoir. Although storage levels are currently very low, most major reservoirs are expected to fill assuming normal precipitation and temperature patterns continue through the remainder of the season.

BIG WOOD, LITTLE WOOD, BIG LOST, AND LITTLE LOST RIVER BASIN

STREAMFLOW FORECASTS

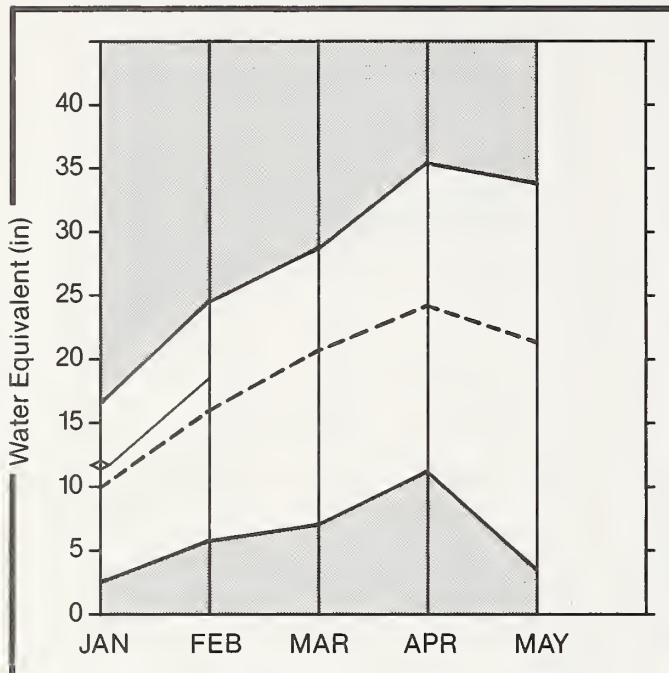
FORECAST POINT	FORECAST PERIOD	HIST PROBABLE (1000AF)	HIST PROBABLE (% AVG.)	WET SUBS. (1000AF)	DRY SUBS. (1000AF)	REAS. MAX. (1000AF)	REAS. MIN. (1000AF)	25 YR. AVG. (1000AF)
BIG WOOD nr Bellevue	APR-SEP APR-JUL	195 180	90 89	235 220	158 144	250 230	139 130	217 202
MAGIC RESERVOIR inflow	APR-SEP APR-JUL	300 285	89 89	345 325	255 245	470 450	138 130	338 322
LITTLE WOOD nr Carey	APR-SEP APR-JUL	100 92	93 93	119 112	81 72	133 123	69 62	107 99
BIG LOST at Howell Ranch nr Chilly	APR-SEP APR-JUL APR-JUN	205 180 140	94 94 95	240 210 158	177 153 122	290 255 196	122 107 84	219 192 148
BIG LOST b1 Mackay Reservoir (2)	APR-SEP	176	90	210	151	245	108	195
LITTLE LOST b1 Wet Ck	APR-SEP APR-JUL	37 30	95 96	44 36	31 25	52 42	22 18.1	39 31
LITTLE LOST nr Howe	APR-SEP APR-JUL	41 31	93 94	46 35	37 28	57 43	25 18.8	44 33

RESERVOIR STORAGE (1000AF)		WATERSHED SNOWPACK ANALYSIS						
RESERVOIR	USEABLE CAPACITY	** USEABLE STORAGE ** THIS YEAR	LAST YEAR	AVG.	WATERSHED	NO. COURSES AVG'D	THIS YEAR AS % OF LAST YR. AVERAGE	
MAGIC	191.5	20.8	15.7	92.8	Big Wood ab Magic	10	152	94
LITTLE WOOD	30.0	9.8	11.4	15.5	Camas Creek	2	184	109
CAREY VALLEY		NO REPORT			Big Wood Total	11	158	96
MACKAY	44.5	20.6	24.2	30.0	Little Wood River	4	158	105
					Fish Creek	2	--	133
					Big Lost River	4	144	93
					Little Lost River	4	122	102

WET SUBS. and DRY SUBS. represent 130 and 70 percent subsequent precipitation events respectively.
 REAS. MAX. and REAS. MIN. forecasts are for 10% and 90% exceedance levels with the exception of (1) below.
 (1) - REAS. MAX. and REAS. MIN. forecasts are for 5% and 95% exceedance levels.
 (2) - Corrected for upstream diversions or changes in reservoir storage.

Willow Creek, Blackfoot, Upper Snake, and Portneuf River Basin

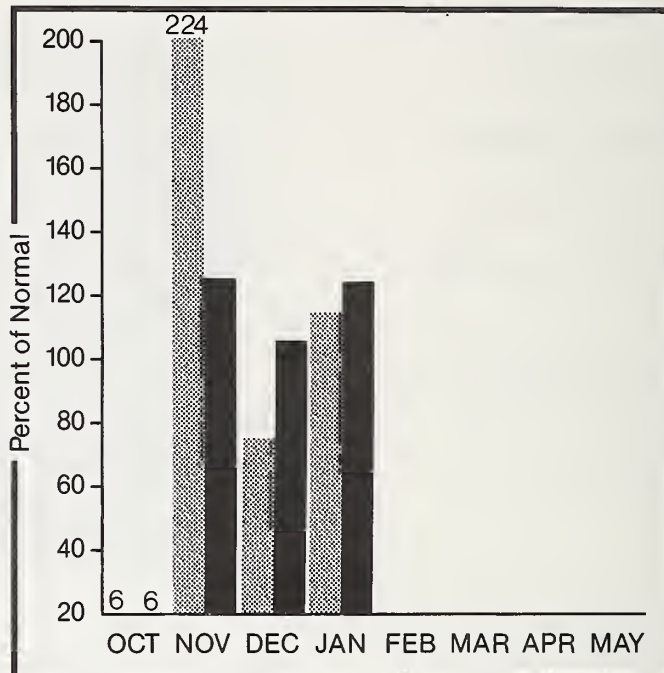
Mountain snowpack* (inches)



*Based on selected stations

Maximum Average
Minimum Current

Precipitation* (percent of normal)



*Based on selected stations

Monthly precipitation Year to date precipitation

WATER SUPPLY OUTLOOK:

February 1 snow surveys show snowpack conditions remain near to above normal throughout the basin. One exception is the Salt River basin which reports only 79% of average snowpack. Elsewhere, snowpacks range from 94% of average on the Greys River to 136% on the Beaver-Camas Creek drainage, with most basins reporting between 104 and 126% of normal snowpack. Apr-Sept streamflows are currently forecast to be near or above average, ranging from 103% on the Teton River to 113% on the Snake nr Moran. Reservoir storage remains below normal in most major reservoirs, ranging from 62% in Blackfoot to 85% in Ririe Reservoir. The exceptions are Jackson Lake which reports only 20% of average storage (17% of capacity) and Brownlee which reports near normal storage at 93% of average.

WILLOW CREEK, BLACKFOOT, UPPER SNAKE, AND PORTNEUF RIVER BASIN

STREAMFLOW FORECASTS

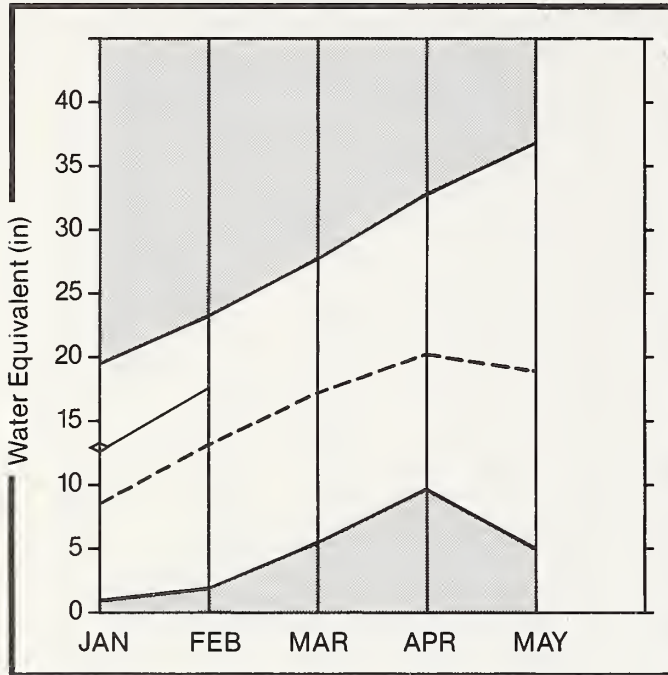
FORECAST POINT	FORECAST PERIOD	HIST PROBABLE (1000AF)	HIST PROBABLE (% AVG.)	WET SUBS. (1000AF)	DRY SUBS. (1000AF)	REAS. MAX. (1000AF)	REAS. MIN. (1000AF)	25 YR. AVG. (1000AF)
HENRYS FORK nr Ashton (2)	APR-SEP	790	106	850	730	880	700	746
	APR-JUL	590	106	635	540	655	525	557
HENRYS FORK nr Rexburg (2)	APR-SEP	1670	105	1830	1510	2000	1340	1595
	APR-JUL	1320	105	1460	1180	1580	1060	1260
FALLS nr Squirrel	APR-JUL	390	105			470	315	373
TETON ab S Leigh Ck nr Driggs	APR-SEP	200	103	230	175	225	173	194
	APR-JUL	152	105	177	129	172	132	145
TETON nr St. Anthony	APR-SEP	510	106	535	480	590	430	479
	APR-JUL	410	106	435	385	475	350	387
SNAKE nr Moran (1)	APR-SEP	1000	113	1090	910	1160	840	888
PALISADES RESERVOIR inflow (1)	APR-SEP	4010	104	4400	3620	5050	2970	3852
SNAKE nr Heise (2)	APR-SEP	4270	103	4850	3690	5430	3110	4142
	APR-JUL	3630	103	4160	3100	4620	2640	3524
SNAKE nr Blackfoot (2)	APR-SEP	5850	103	6650	5050	7160	4540	5680
	APR-JUL	4710	103	5400	4020	5770	3650	4589
PORTNEUF at Topaz	MAR-SEP	110	101	122	98	150	70	109
	MAR-JUL	88	100	99	77	121	56	88

RESERVOIR STORAGE (1000AF)					WATERSHED SNOWPACK ANALYSIS			
RESERVOIR	USEABLE CAPACITY	** USEABLE STORAGE ** THIS YEAR	LAST YEAR	AVG.	WATERSHED	NO. COURSES AVG'D	THIS YEAR AS % OF LAST YR.	AVERAGE
ISLAND PARK	127.6	81.6	104.0	100.7	Camas-Beaver Creeks	4	201	136
GRASSY LAKE	15.2	8.7	8.9	10.7	Henrys Fork River	6	182	126
JACKSON LAKE	624.4	105.1	93.6	535.6	Teton River	9	148	116
PALISADES	1357.0	538.6	760.3	1016.0	Snake ab Palisades Res	31	140	104
AMERICAN FALLS	1700.0	893.9	1106.6	1141.5	Snake ab Jackson Lake	8	148	119
BROWNLEE	975.3	619.9	572.3	665.4	Gros Ventre River	3	143	100
BLACKFOOT	348.7	147.2	244.2	235.8	Greys River	5	123	94
HENRY'S LAKE	90.4	65.5	76.9	78.7	Salt River	5	128	79
RIPIE	96.5	41.0	47.4	48.5	Willow Creek	11	156	125
					Blackfoot River	7	150	108
					Portneuf River	9	145	106
					Toponce Creek	0	0	0

WET SUBS. and DRY SUBS. represent 130 and 70 percent subsequent precipitation events respectively.
 REAS. MAX. and REAS. MIN. forecasts are for 10% and 90% exceedance levels with the exception of (1) below.
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 (2) - Corrected for upstream diversions or changes in reservoir storage.

Southside Snake River Basin

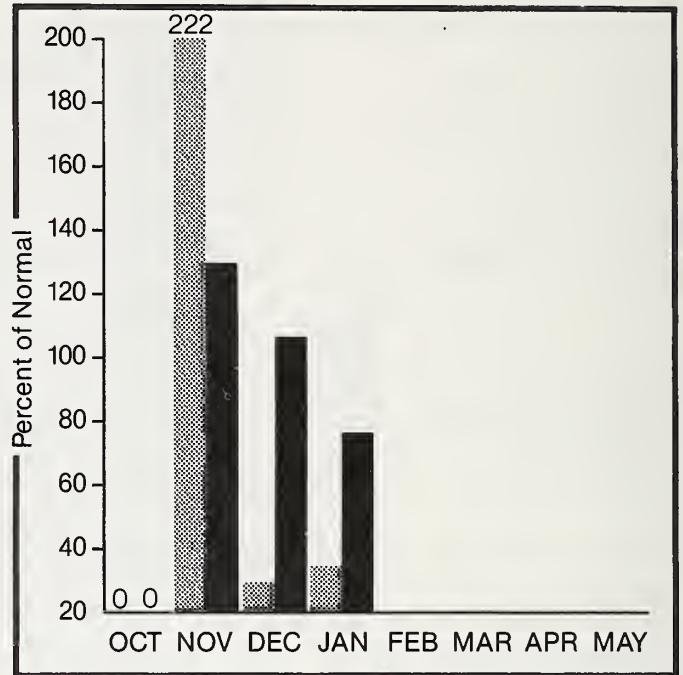
Mountain snowpack* (inches)



*Based on selected stations

Maximum Average
Minimum Current

Precipitation* (percent of normal)



*Based on selected stations

Monthly precipitation Year to date precipitation

WATER SUPPLY OUTLOOK:

In comparison to normal, the February 1 snow measurements show a drop from those reported a month ago, but basin snowpacks remain above to well above average on all watersheds. Snowpacks currently range from 116% of normal on the Raft River to 171% on the Owyhee. Soil profiles remain dry and are expected to absorb above normal amounts of moisture when spring snowmelt begins. Mar-Sept and Apr-Sept streamflow forecasts have been decreased slightly, but remain above normal, ranging from 115% for Oakley Reservoir inflow to 121% for Owyhee Reservoir inflow. Carryover storage remains very low, ranging from only 18% of average in Owyhee Reservoir to 41% of average in Salmon Falls Creek Reservoir.

SOUTHSIDE SNAKE RIVER BASIN

STREAMFLOW FORECASTS

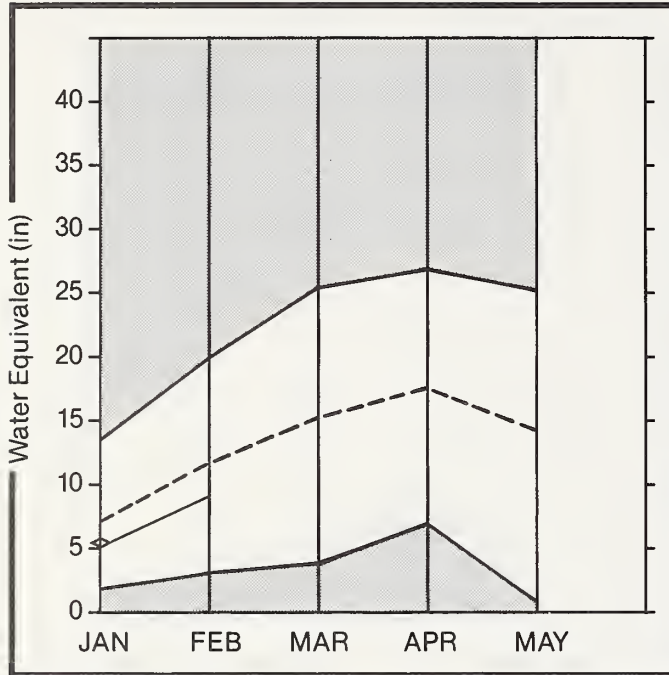
FORECAST POINT	FORECAST PERIOD	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVG.)	WET SUBS. (1000AF)	DRY SUBS. (1000AF)	REAS. MAX. (1000AF)	REAS. MIN. (1000AF)	25 YR. AVG. (1000AF)
OAKLEY RESERVOIR inflow	APR-SEP	38	115	43	33	50	26	33
	APR-JUL	34	114	40	30	45	23	30
SALMON FALLS CK nr San Jacinto	MAR-SEP	113	111	133	93	152	74	102
	MAR-JUL	108	111	128	88	145	71	97
	MAR-JUN	101	111	118	83	136	66	91
BRUNEAU nr Hot Spring	MAR-SEP	290	112	335	250	395	186	260
	MAR-JUL	275	111	320	230	375	178	248
OWYHEE nr Gold Ck (2)	MAR-JUL	37	112			55	17.5	33
OWYHEE nr Owyhee (2)	APR-JUL	90	105	122	58	144	36	86
OWYHEE nr Pome (2)	FEB-JUL	730	125	820	640	1020	435	586
OWYHEE RESERVOIR inflow (1)	APR-SEP	550	121	580	520	725	335	455
	FEB-JUL	800	120	875	725	1050	500	668

RESERVOIR STORAGE (1000AF)					WATERSHED SNOWPACK ANALYSIS			
RESERVOIR	USEABLE CAPACITY	** USEABLE STORAGE **	THIS YEAR	LAST YEAR	AVG.	WATERSHED	NO. COURSES AVG'D	THIS YEAR AS % OF LAST YR. AVERAGE
OAKLEY	77.4	10.2	9.5	26.5		Raft River	2	177 116
SALMON FALLS	182.6	20.1	35.8	49.3		Goose-Trapper Creeks	2	192 132
OWYHEE	715.0	81.1	187.5	443.9		Salmon Falls Creek	9	148 129
						Bruneau River	9	165 138
						Owyhee River	23	215 171

WET SUBS. and DRY SUBS. represent 130 and 70 percent subsequent precipitation events respectively.
 REAS. MAX. and REAS. MIN. forecasts are for 10% and 90% exceedance levels with the exception of (1) below.
 (1) - REAS. MAX. and REAS. MIN. forecasts are for 5% and 95% exceedance levels.
 (2) - Corrected for upstream diversions or changes in reservoir storage.

Great Basin

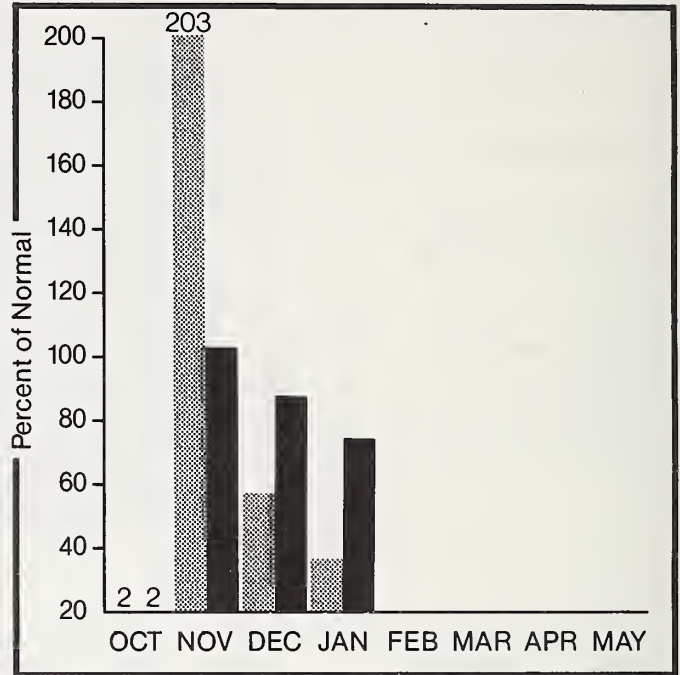
Mountain snowpack* (inches)



*Based on selected stations

Maximum Average
Minimum Current

Precipitation* (percent of normal)



*Based on selected stations

Monthly precipitation Year to date precipitation

WATER SUPPLY OUTLOOK:

Snow measurements taken near the first of February show snowpack conditions remain generally below normal throughout the basin, ranging from 83% of average on the Cub River and Montpelier Creek drainages to 93% on the Mink Creek drainage. The exception is the Malad River basin which reports 110% of average snowpack. Mountain soil profiles remain dry and are expected to absorb above normal amounts of moisture when the spring snowmelt begins. Normal or above normal precipitation will be needed over the remainder of the winter and spring season to produce normal runoff volumes for the upcoming irrigation season. Apr-Sept streamflow volumes are currently forecast to be slightly below normal, ranging from 79% to 85% of average. Carryover storage also remains below normal with Bear Lake reporting 81% of average storage and Montpelier Creek Reservoir only 35% of average.

GREAT BASIN

STREAMFLOW FORECASTS

FORECAST POINT	FORECAST PERIOD	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVG.)	WET SUBS. (1000AF)	DRY SUBS. (1000AF)	REAS. MAX. (1000AF)	REAS. MIN. (1000AF)	25 YR. AVG. (1000AF)
BEAR RIVER near Harer	APR-SEP	245	79	290	195	390	102	310
MONTPELIER CK nr Montpelier	APR-SEP	11.5	83	13.3	9.7	17.1	5.9	13.9
CUB RIVER near Preston	APR-SEP	44	85	54	34			52
	APR-JUL	40	85	49	31	55	25	47

RESERVOIR STORAGE (1000AF)					WATERSHED SNOWPACK ANALYSIS			
RESERVOIR	USEABLE CAPACITY	THIS YEAR	** USEABLE STORAGE ** LAST YEAR	AVG.	WATERSHED	NO. COURSES AVG'D	THIS YEAR AS % OF LAST YR.	% OF AVERAGE
BEAR LAKE	1421.0	802.9	1013.4	987.6	Bear River (above Harer)	11	120	86
MONTPELIER CREEK	4.0	0.6	1.2	1.7	Montpelier Creek	7	110	83
					Hink Creek	5	147	93
					Cub River	3	121	83
					Malad River	1	140	110

WET SUBS. and DRY SUBS. represent 150 and 50 percent subsequent precipitation events respectively.
 REAS. MAX. and REAS. MIN. forecasts are for 10% and 90% exceedance levels with the exception of (1) below.
 (1) - REAS. MAX. and REAS. MIN. forecasts are for 5% and 95% exceedance levels.
 (2) - Corrected for upstream diversions or changes in reservoir storage.

SNOW DATA MEASUREMENTS

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1961-85	SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1961-85
UPPER COLUMBIA BASIN							CLEARWATER BASIN						
WATERSHED I							WATERSHED II						
ABOVE BURKE	4100	2/06/89	---	14.3E	6.7	14.2	BREEZY SADDLE	5010	1/26/89	67	19.6	13.7	20.6
ABOVE ROLAND	4350	2/06/89	---	18.2E	10.8	20.8	CAYUSE AIRSTRIP	3500	1/26/89	37	9.7	6.4	8.8
BEAR MOUNTAIN	5400	1/30/89	---	37.2E	24.3	41.5	COOL CREEK	6250	1/26/89	116	35.5	21.4	36.6
BEAR MTN	5400	2/01/89	---	36.5	24.3	42.6	COOL CREEK	6280	2/01/89	---	33.6	20.5	34.4
BENTON MEADOW	2370	1/31/89	16	5.0	2.4	5.1	CRATER MEADOWS	5960	1/26/89	96	29.1	17.2	30.2
BENTON SPRING	4920	1/31/89	46	15.7	8.2	13.2	CRATER MOWS	5960	2/01/89	---	31.2	18.5	31.6
BREEZY SADDLE	5010	1/26/89	67	19.6	13.7	20.6	CROOKED FORK	3610	1/30/89	43	12.4	8.0	9.9
COPPER RIDGE	4820	1/30/89	---	15.7E	---	18.3	ELK BUTTE	5550	1/26/89	---	26.2E	14.4	25.5
FORTY-NINE MEADOWS	4830	1/30/89	---	19.2E	12.7	20.3	ELK BUTTE	5550	2/01/89	---	30.1	15.7	28.7
FOURTH OF JULY SUM	3200	1/31/89	33	11.2	5.4	7.1	FISH LAKE AIRSTRIP	5650	1/26/89	88	26.4	19.1	27.0
HUMBOLDT GULCH	4250	2/06/89	37	10.8	5.4	10.7	FORTY-NINE MEADOWS	4830	1/30/89	---	19.2E	12.7	20.3
HUMBOLDT GLCH PILLOW	4250	2/01/89	---	9.9	5.1	9.7	HENLOCK BUTTE	5810	1/26/89	111	33.3	16.4	34.0
KELLOGG PEAK	5560	2/06/89	---	19.4E	12.2	22.4	HENLOCK BUTTE PILLOW	5810	2/01/89	---	35.2	18.7	33.3
LOOROUT	5140	2/06/89	61	19.8	12.6	23.6	HOODOO BASIN	6050	1/28/89	96	31.1	23.5	34.6
LOOKOUT	5140	2/01/89	---	19.0	13.1	23.0	HOODOO CREEK	5900	1/28/89	89	27.6	19.4	31.7
LOST LAKE	6110	1/26/89	106	35.2	21.0	39.1	LOLO PASS	5240	2/02/89	60	16.5	13.2	20.6
LOST LAKE	6110	2/01/89	---	39.0	22.3	44.4	LOLO PASS	5240	2/01/89	---	19.4	14.3	22.2
LOWER SANDS CREEK	3120	2/06/89	---	15.4E	6.2	12.3	LOST LAKE	6110	1/26/89	106	35.2	21.0	39.1
MOSOITO RIDGE	5200	1/31/89	77	26.0	16.2	26.2	LOST LAKE	6110	2/01/89	---	39.0	22.3	44.4
MOSQUITO	5200	2/01/89	---	26.0	16.2	26.3	MOUNTAIN MEADOWS	6360	1/30/89	---	13.7E	9.9	15.8
ROLAND SUMMIT	5120	2/06/89	---	22.7E	---	25.9	MOUNTAIN MOWS PILLOW	6360	2/01/89	---	15.6	11.3	18.3
SCHWEITZER BASIN	6090	1/30/89	90	33.6	25.0	33.0	PIERCE R.S.	3080	2/01/89	40	10.8	5.6	8.1
SCHWEITZER BN PILLOW	6090	2/01/89	---	34.5	29.4	34.6	SAVAGE PASS	6170	1/30/89	56	17.8	14.0	17.7
SCHWEITZER BOWL	4800	1/30/89	59	20.4	16.3	21.4	SAVAGE PASS	6170	2/01/89	---	18.5	13.6	18.3
SCHWEITZER RIDGE	6200	1/30/89	83	30.5	23.6	32.2	SHANGHAI SUMMIT	4570	1/28/89	87	24.9	9.2	17.8
SHERWIN	3200	1/30/89	---	15.4E	6.4	9.8	SHANGHAI SUM	4570	2/01/89	---	25.7	10.0	19.0
SHERWIN	3200	2/01/89	---	13.8	6.0	9.5	SHERWIN	3200	1/30/89	---	15.4E	6.4	9.8
SUNSET	5540	1/30/89	60	19.7	7.4	22.8	SHERWIN	3200	2/01/89	---	13.8	6.0	9.5
SUNSET	5540	2/01/89	---	22.8	10.8	24.3							
SALMON BASIN							WEISER, PAYETTE, AND BOISE BASINS						
WATERSHED III							WATERSHED IV						
BANNER SUMMIT	7040	1/30/89	---	20.2E	14.4	21.7	ATLANTA SUMMIT	7600	1/28/89	76	23.9	15.5	24.2
BANNER SUMMIT PILLOW	7040	2/01/89	---	16.6	13.0	19.4	ATLANTA SUM	7580	2/01/89	---	21.4	15.5	21.6
BEAR BASIN	5350	1/30/89	---	15.3E	6.9	13.5	ATLANTA TOWNSITE	5370	1/28/89	35	9.0	5.5	---
BEAR BASIN	5350	2/01/89	---	16.1	6.5	13.4	BANNER SUMMIT	7040	1/30/89	---	20.2E	14.4	21.7
BIG CREEK SUMMIT	6580	1/30/89	---	25.7E	17.5	25.4	BANNER SUMMIT PILLOW	7040	2/01/89	---	16.6	13.0	19.4
BIG CREEK SUM PILLOW	6580	2/01/89	---	22.5	15.5	22.0	BAD BEAR	4940	2/01/89	41	12.3	6.9	10.5
BOULDER CREEK	5440	1/30/89	---	16.5E	9.6	16.6	BEAR BASIN	5350	1/30/89	---	15.3E	6.9	13.5
BRUNDAGE MOUNTAIN	7560	1/30/89	---	28.8E	22.2	30.8	BEAR BASIN	5350	2/01/89	---	16.1	6.5	13.4
BRUNO CREEK	7920	2/02/89	44	11.9	11.0	13.7	BEAR SADDLE	6180	2/02/89	72	22.6	12.5	21.6
DEADWOOD SUMMIT	6860	1/27/89	89	27.5	21.2	32.2	BEAR SADDLE	6180	2/01/89	---	21.1	12.6	21.8
GALENA SUMMIT	8780	1/30/89	46	14.0	8.8	16.4	BIG CREEK SUMMIT	6580	1/30/89	---	25.7E	17.5	25.4
GALENA SUMMIT PILLOW	8780	2/01/89	---	12.1	9.5	13.2	BIG CREEK SUM PILLOW	6580	2/01/89	---	22.5	15.5	22.0
GIBBONS PASS	7100	1/31/89	54	16.4	10.7	16.0	BUGUS BASIN	6340	2/01/89	63	20.2	11.2	16.7
MEADOW LAKE	9150	1/30/89	---	10.5E	6.8	13.1	BUGUS BASIN ROAD	5540	2/01/89	31	9.9	5.9	5.9
MEADOW LAKE	9150	2/01/89	---	10.5	5.2	13.4	BOULDER CREEK	5440	1/30/89	---	16.5E	9.6	16.6
MILL CREEK SUMMIT	8800	1/30/89	---	12.1E	10.0	16.0	BRUNDAGE MOUNTAIN	7560	1/30/89	---	28.8E	22.2	30.8
MILL CREEK ST PILLOW	8800	2/01/89	---	12.1	9.6	15.0	BRUNDAGE RESV PILLOW	4500	2/01/89	---	18.5	11.9	---
MOONSHINE	7440	1/26/89	34	7.3	5.9	7.3	COUGH SUMMIT	6840	1/28/89	---	13.8E	7.6	13.2
MOONSHINE	7440	2/01/89	---	7.8	5.8	7.5	COZY COVE	5380	1/27/89	39	10.3	6.6	11.9
MOOSE CREEK	6200	1/31/89	45	13.9	9.2	12.1	COZY COVE	5380	2/01/89	---	10.3	---	---
MOUSE CR	6200	2/01/89	---	12.6	9.1	12.2	CRAWFORD R.S.	4860	1/26/89	32	8.6	4.0	6.3
MORGAN CREEK	7600	1/30/89	---	7.3E	7.0	9.6	DEADMAN GULCH	5600	1/30/89	58	17.0	10.3	12.5
MORGAN CREEK	7600	2/01/89	---	6.8	6.8	9.2	DEADWOOD AIRSTRIP	5360	1/30/89	---	10.5E	8.7	11.2
ROCK FLAT SUMMIT	5310	1/30/89	---	15.2E	7.5	12.6	DEADWOOD SUMMIT	6860	1/27/89	89	27.5	21.2	32.2
SADDLE MOUNTAIN	7940	1/31/89	59	18.5	11.4	17.6	DOLLARHIDE SUMMIT	8420	1/28/89	56	17.4	10.5	17.2
SECESH SUMMIT	6520	1/26/89	73	22.3	17.3	25.1	DOLLARHIDE SM PILLOW	8420	2/01/89	---	17.9	11.0	17.5
SECESH SUMMIT PILLOW	6520	2/01/89	---	20.6	17.4	25.4	GRAHAM GUARD STATION	5690	1/27/89	42	11.1	7.9	11.6
SQUAW MEADOW	5900	1/26/89	74	22.6	16.5	24.3	GRAHAM G.S.	5690	2/01/89	---	10.7	6.4	12.2
VIENNA MINE	8960	1/27/89	78	24.2	15.5	25.1	IDAHO CITY TOWNSITE	4000	2/01/89	24	6.9	4.5	4.3
VIENNA MINE	8960	2/01/89	---	20.6	16.3	25.1	JACKSON PEAK	7070	1/27/89	66	20.2	12.2	22.4
WEBB CREEK	4720	1/27/89	35	8.4	3.6	7.5	LAKE FORK	5290	1/26/89	48	12.9	6.5	11.8
WEST BRANCH	5560	1/27/89	58	18.2	11.8	18.2	MOORES CREEK SUMMIT	6100	2/01/89	73	25.6	16.3	22.6
WEST BRANCH	5560	2/01/89	---	16.9	11.7	18.1	MOORES CR SUM PILLOW	6100	2/01/89	---	24.6	15.8	22.9
							PRAIRIE	4800	1/28/89	34	8.6	3.5	4.9
							PRAIRIE	4800	2/01/89	---	5.8	3.5	---
							ROAD CREEK	5380	1/28/89	32	8.3	4.5	7.4
							ROCK FLAT SUMMIT	5310	1/30/89	---	15.2E	7.5	12.6
							SECESH SUMMIT	6520	1/26/89	73	22.3	17.3	25.1
							SECESH SUMMIT PILLOW	6520	2/01/89	---	20.6	17.4	25.4
							SOLDIER R.S.	5740	1/28/89	41	11.0	5.9	9.5
							SOLDIER R.S.	4330	2/01/89	---	11.8	6.1	---
							SQUAW FLAT	6240	1/30/89	---	15.9E	13.5	18.4
							SQUAW FLAT	6240	2/01/89	---	14.2	12.0	16.2
							SQUAW MEADOW	5900	1/26/89	74	22.6	16.5	24.3
							TRINITY MOUNTAIN	7770	1/28/89	86	30.1	19.5	29.3
							TRINITY MOUNTAIN	7770	2/01/89	---	28.4	19.9	28.3
							TRIPUD SUMMIT	5260	1/25/89	60	17.2	9.2	12.9
							VIENNA MINE	8960	1/27/89	78	24.2	15.5	25.1
							VIENNA MINE	8960	2/01/89	---	20.6	16.3	25.1
							WEST BRANCH	5560	1/27/89	58	18.2	11.8	18.2
							WEST BRANCH	5560	2/01/89	---	16.9	11.7	18.1

SNOW DATA MEASUREMENTS (cont.)

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1961-85	SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1961-85
BIG WOOD, LITTLE WOOD, BIG LOST, AND LITTLE LOST BASINS							WILLOW, BLACKFOOT, UPPER SNAKE, AND PORTNEUF BASINS						
WATERSHED V							WATERSHED VI						
BEAK CANYON	7900	1/30/89	---	11.8E	9.4	12.4	ASPEN GROVE	6500	1/31/89	---	9.9E	7.8	8.9
BEAK CANYON PILLOW	7900	2/01/89	---	9.9	8.5	11.4	AUSTIN BROTHERS RNCH	6400	1/30/89	---	6.7E	4.9	6.6
COPPER BASIN	7640	1/30/89	---	5.1E	2.7	6.3	BEAVERDAM CREEK	6120	1/28/89	26	6.4	4.7	6.5
COUCH SUMMIT	6840	1/28/89	---	13.8E	7.6	13.2	BIG SPRINGS	6400	2/01/89	55	17.1	8.9	14.0
DOLLARIDE SUMMIT	8420	1/28/89	56	17.4	10.5	17.2	BIRCH CREEK	6800	1/31/89	31	9.1	5.4	7.7
DOLLARIDE SM PILLOW	8420	2/01/89	---	17.9	11.0	17.5	BLUE LDGE MINE	6900	1/30/89	---	16.3E	8.4	11.8
GALENA	7440	1/30/89	---	12.0E	7.8	13.7	BLUE RIDGE	6780	1/31/89	51	16.4	10.1	13.6
GALENA PILLOW	7440	2/01/89	---	11.5	8.0	13.5	BOONE	6200	1/31/89	28	7.7	4.4	5.6
GALENA NEW	7470	1/30/89	46	12.8	8.3	15.2	BROCKMAN STATION	6430	1/31/89	34	9.9	6.5	6.8
GALENA SUMMIT	8780	1/30/89	46	14.0	8.8	16.4	CAMP CREEK	6580	1/30/89	36	9.6	4.0	7.2
GALENA SUMMIT PILLOW	8780	2/01/89	---	12.1	9.5	13.2	COULTER CREEK PILLOW	7020	1/30/89	58	17.1	11.6	15.9
GARFIELD R.S.	6560	1/31/89	32	8.5	4.4	7.4	CRAB CREEK	6860	1/30/89	---	15.2E	7.4	10.8
GARFIELD R.S. PILLOW	6560	2/01/89	---	8.2	4.8	7.3	CRAB CREEK PILLOW	6860	2/01/89	---	15.7	7.8	11.4
GRAHAM RANCH	6270	1/30/89	41	10.7	4.8	10.0	EAST CREEK	7000	1/29/89	34	8.3	7.1	7.7
HILTS CREEK	8000	1/27/89	35	7.8	7.0	7.7	FALL CREEK	6820	1/31/89	30	8.8	4.7	6.8
HILTS CREEK PILLOW	8000	2/01/89	---	9.0	8.9	8.9	GRASSY LAKE	7270	1/30/89	80	28.4	18.8	24.0
HYNUMAN CREEK	7440	1/30/89	---	10.3E	7.8	10.0	GRASSY LAKE PILLOW	7270	2/01/89	---	24.6	15.7	24.8
HYNUMAN PILLOW	7440	2/01/89	---	9.0	7.1	8.7	INOIAN MEADOWS	9420	1/31/89	81	27.9	21.1	24.8
IRON MINE CREEK	6300	1/31/89	35	9.6	---	8.0	ISLAND PARK	6290	2/06/89	52	15.6	8.1	11.6
LOST-WOOD DIVIDE	7900	1/30/89	---	15.1E	11.0	16.0	ISLAND PARK PILLOW	6290	2/01/89	---	15.1	9.2	11.5
LOST-WOOD DVD PILLOW	7900	2/01/89	---	15.8	11.2	16.1	JACKPINE CREEK	7350	1/31/89	52	16.4	12.5	15.2
MASCOT MINE	7780	1/30/89	---	9.6E	8.4	10.6	KILGORE	6320	1/30/89	37	10.5	5.9	8.2
MOONSHINE	7440	1/26/89	34	7.3	5.9	7.3	LAVA CREEK	7350	1/31/89	44	12.2	8.7	10.1
MOONSHINE PILLOW	7440	2/01/89	---	7.8	5.8	7.5	LOWER PEBBLE	5780	1/28/89	38	11.3	8.1	9.3
MOUNT BALDY	8920	1/30/89	48	13.6	9.2	14.5	MC RENOLDS RESERVOIR	6720	1/31/89	48	13.5	9.1	13.1
MULDOON	6320	1/31/89	22	5.8	3.1	5.6	MINK CREEK	6410	1/29/89	47	12.4	8.5	12.4
SAWMILL CANYON	7000	1/26/89	27	5.9	4.0	5.7	MUD CREEK	7100	1/31/89	58	17.9	10.8	13.3
SOLDIER R.S.	5740	1/28/89	41	11.0	5.9	9.5	NORTH PUTNAM	7240	1/31/89	57	19.0	12.3	20.5
SOLDIER R.S. PILLOW	4330	2/01/89	---	11.8	6.1	---	PEBBLE CREEK	6550	1/29/89	41	11.7	7.9	11.5
STICKNEY MILL	7430	1/30/89	---	5.8E	3.2	6.0	PHILLIPS BENCH	8200	1/27/89	77	22.9	14.8	21.2
STICKNEY MILL PILLOW	7430	2/01/89	---	5.1	2.8	5.4	PHILLIPS BENCH PILL.	8200	2/01/89	---	22.1	---	19.4
SWEDE PEAK	7640	1/31/89	45	13.0	7.8	11.9	PINE CREEK PASS	6810	1/31/89	44	13.5	9.9	11.6
SWEDE PEAK PILLOW	7640	2/01/89	---	12.5	7.2	10.2	SAWTELL MOUNTAIN	8720	2/06/89	86	30.2	16.7	23.0
TELFER RANCH	5840	1/31/89	33	9.1	---	6.1	SEDGWICK PEAK	7850	1/29/89	42	11.8	9.2	12.8
VIENNA MINE	8960	1/27/89	78	24.2	15.5	25.1	SHEEP MOUNTAIN	6570	1/31/89	36	10.5	7.4	9.2
VIENNA MINE PILLOW	8960	2/01/89	---	20.6	16.3	25.1	SHEEP MTN PILLOW	6570	2/01/89	---	13.1	8.1	10.1
WET CREEK SUMMIT	7680	1/27/89	34	8.2	7.1	7.8	SLUG CREEK DIVIDE	7230	1/31/89	31	9.5	7.5	11.3
							SLUG CK DVD PILLOW	7230	2/01/89	---	8.9	8.7	12.9
							SOMSEN RANCH	6840	1/30/89	39	11.6	7.7	10.1
							SOMSEN RANCH PILLOW	6800	2/01/89	---	8.9	7.0	9.3
							STATF LINE	6660	1/31/89	42	12.4	8.0	9.9
							TARGHEE PASS	6980	2/06/89	---	12.6E	---	10.1
							TETON PASS W.S.	7740	1/27/89	69	22.5	12.9	17.5
							TEX CREEK	6650	1/30/89	---	8.7E	5.1	6.2
							TWITCHELL CANYON	6300	1/31/89	48	16.2	9.8	11.0
							VALLEY VIEW	6680	2/06/89	47	14.0	5.8	11.4
							WHITE ELEPHANT	7710	2/06/89	66	22.3	12.0	17.0
							WHITE ELEPHANT PILL	7710	2/01/89	---	24.8	14.6	18.1
							WILDHORSE DIVIDE	6490	1/29/89	42	12.5	8.0	11.7
							WILDHORSE OVD PILLOW	6490	2/01/89	---	13.1	7.8	10.7
							WOOU CANYON DIVIDE	7450	1/30/89	29	7.6	---	---
SOUTHSIDE SNAKE BASIN							WATERSHED VII						
ANTELOPE RIDGE	6180	1/30/89	---	10.9E	3.0	---	ANTELOPE RIDGE	6180	1/30/89	---	10.9E	3.0	---
BADGER GULCH	6660	1/30/89	---	11.4E	6.7	8.1	BADGER GULCH	6660	1/30/89	---	11.4E	6.7	8.1
BATTLE CREEK AM	5720	1/27/89	33	10.9	2.2	2.9	BATTLE CREEK AM	5720	1/27/89	33	10.9	2.2	2.9
BEAK CREEK	7800	1/30/89	---	17.1E	10.4	13.5	BEAK CREEK	7800	1/30/89	---	17.1E	10.4	13.5
BEAK CK SNOTEL	7800	2/01/89	---	16.9	10.0	13.0	BEAK CK SNOTEL	7800	2/01/89	---	16.9	10.0	13.0
BIG BEND	6700	1/31/89	31	8.4	5.4	6.2	BIG BEND	6700	1/31/89	31	8.4	5.4	6.2
BOSTETTER R.S.	7500	1/30/89	---	18.0E	8.6	14.2	BOSTETTER R.S.	7500	1/30/89	---	18.0E	8.6	14.2
BOSTETTER RS PILLOW	7500	2/01/89	---	16.2	7.5	12.4	BOSTETTER RS PILLOW	7500	2/01/89	---	16.2	7.5	12.4
BULL BASIN AM	5460	1/27/89	18	5.6	1.8	1.4	BULL BASIN AM	5460	1/27/89	18	5.6	1.8	1.4
CLEAR CREEK MEADOWS	9420	1/30/89	---	16.6E	9.3	15.2	CLEAR CREEK MEADOWS	9420	1/30/89	---	16.6E	9.3	15.2
COLUMBIA BASIN AM	6650	1/30/89	32	9.1	---	6.5	COLUMBIA BASIN AM	6650	1/30/89	32	9.1	---	6.5
DEADLINE	7400	1/27/89	34	11.0	7.8	15.5	DEADLINE	7400	1/27/89	34	11.0	7.8	15.5
DEADLINE SOUTH	7450	1/27/89	45	15.7	11.7	16.9	DEADLINE SOUTH	7450	1/27/89	45	15.7	11.7	16.9
GOAT CREEK	8800	1/30/89	---	14.4E	9.8	11.7	GOAT CREEK	8800	1/30/89	---	14.4E	9.8	11.7
GOLU CREEK	6600	1/31/89	23	6.3	3.7	3.9	GOLU CREEK	6600	1/31/89	23	6.3	3.7	3.9
HOWELL CANYON	7980	1/30/89	---	22.2E	12.6	18.2	HOWELL CANYON	7980	1/30/89	---	22.2E	12.6	18.2
HOWELL CANYON PILLOW	7980	2/01/89	---	18.5	10.6	15.3	HOWELL CANYON PILLOW	7980	2/01/89	---	18.5	10.6	15.3
HUMMINGBIRU SPRINGS	8950	1/30/89	---	20.3E	13.8	15.5	HUMMINGBIRU SPRINGS	8950	1/30/89	---	20.3E	13.8	15.5
HYDE PASTURE AM	5760	1/27/89	40	13.6	2.2	4.7	HYDE PASTURE AM	5760	1/27/89	40	13.6	2.2	4.7
JACK CREEK, LOWER	6800	1/30/89	18	4.5	4.6	2.6	JACK CREEK, LOWER	6800	1/30/89	18	4.5	4.6	2.6
JACKS PEAK	8420	2/01/89	---	20.3E	9.4	14.4	JACKS PEAK	8420	2/01/89	---	20.3E	9.4	14.4
LANGFORD FLAT CREEK	5980	1/27/89	27	7.1	5.1	5.1	LANGFORD FLAT CREEK	5980	1/27/89	27	7.1	5.1	5.1
LAUREL ORAW	6700	2/01/89	---	8.2E	5.3	5.8	LAUREL ORAW	6700	2/01/89	---	8.2E	5.3	5.8
LOUSE CANYON AM	6440	1/27/89	33	11.6	3.4	4.1	LOUSE CANYON AM	6440	1/27/89	33	11.6	3.4	4.1
MAGIC MOUNTAIN	6880	1/27/89	51	16.1	9.9	13.1	MAGIC MOUNTAIN	6880	1/27/89	51	16.1	9.9	13.1
MAGIC MTN PILLOW	6880	2/01/89	---	16.7	9.8	13.1	MAGIC MTN PILLOW	6880	2/01/89	---	16.7	9.8	13.1
MERRIT MOUNTAIN AM	7000	1/30/89	33	8.9	---	5.0	MERRIT MOUNTAIN AM	7000	1/30/89	33	8.9	---	5.0
MUU FLAT	5730	1/30/89	---	8.0E	3.8	4.8	MUU FLAT	5730	1/30/89	---	8.0E	3.8	4.8
MUU FLAT PILLOW	5730	2/01/89	---	8.2	---	4.3	MUU FLAT PILLOW	5730	2/01/89	---	8.2	---	4.3
OREGON CANYON AM	6950	1/27/89	27	9.2	3.4	4.3	OREGON CANYON AM	6950	1/27/89	27	9.2	3.4	4.3
POLE CREEK R.S.	8330	1/30/89	---	17.4E	11.8	13.0	POLE CREEK R.S.	8330	1/30/89	---	17.4E	11.8	13.0
QUINN RIDGE AM	6300	1/27/89	21	6.5	4.2	1.5	QUINN RIDGE AM	6300	1/27/89	21	6.5	4.2	1.5
RED CANYON AM	6650	1/27/89	30	9.6	4.1	5.5	RED CANYON AM	6650	1/27/89	30	9.6	4.1	5.5
SEVENTYSIX CREEK	7100	2/01/89	---	7.5E	5.8	8.3	SEVENTYSIX CREEK	7100	2/01/89	---	7.5E	5.8	8.3
SEVENTYSIX CK SNOTEL	7100	2/01/89	---	5.8S	4.4	6.3	SEVENTYSIX CK SNOTEL	7100	2/01/89	---	5.8S	4.4	6.3
SHOSHONE BASIN	5810	1/27/89	---	6.8E	4.8	4.8	SHOSHONE BASIN	5810	1/27/89	---	6.8E	4.8	4.8
SOUTH MOUNTAIN	6500	1/30/89	52	18.4	10.2	10.1	SOUTH MOUNTAIN	6500	1/30/89	52	18.4	10.2	10.1
SOUTH MTN PILLOW	6500	2/01/89	---	23.3	10.0	9.6	SOUTH MTN PILLOW	6500	2/01/89	---	23.3	10.0	9.6
SUCCOCK CREEK AM	6100	1/27/89	43	14.6	4.8	4.4	SUCCOCK CREEK AM	6100	1/27/89	43	14.6	4.8	4.4</

The Following Organizations Cooperate With The Soil Conservation Service In Snow Survey Work

State

Idaho Department of Water Resources
Soil and Water Conservation Districts of Idaho

Federal

U.S. Department of Agriculture
Forest Service
U.S. Department of Army
Corps of Engineers
U.S. Department of Commerce
NOAA, National Weather Service
U.S. Department of Interior
Bureau of Reclamation
Geological Survey, Water Resources Division
Shoshone-Bannock Tribal Council

Local

Big Lost River Irrigation District
Big Wood Irrigation Company
Boise Project Board of Control
Idaho Water District #01
Lewiston Orchards Irrigation District
Little Wood River Irrigation District
North Board of Control — Owyhee Project
Salmon Falls Irrigation Company
South Board of Control — Owyhee Project

Private

Cyprus Mining Company
FMC Corporation
Idaho Power Company
Le Bois Resort
Washington Water Power Company

Other organizations and individuals furnish information for the snow survey reports. Their cooperation is gratefully acknowledged.

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